PRINTERHANDBUCH

OKI Microline 380

Modell: **ML 380 IBM-/EPSON**

Art.-Nr.: ML 380 : 0138002

- ML 380 IBM (Proprinter 4207/8) (X24/XL24, AGM)
- ML 380 EPSON

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DATEX-J / Btx: *222333#

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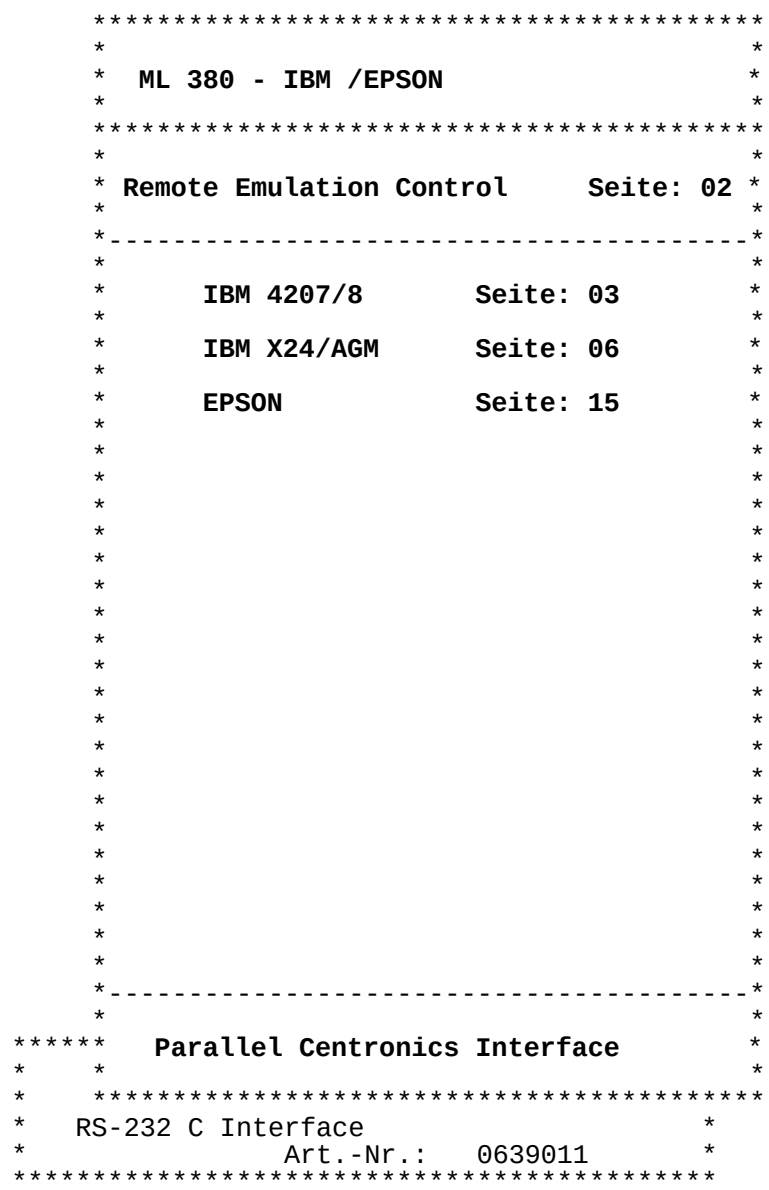
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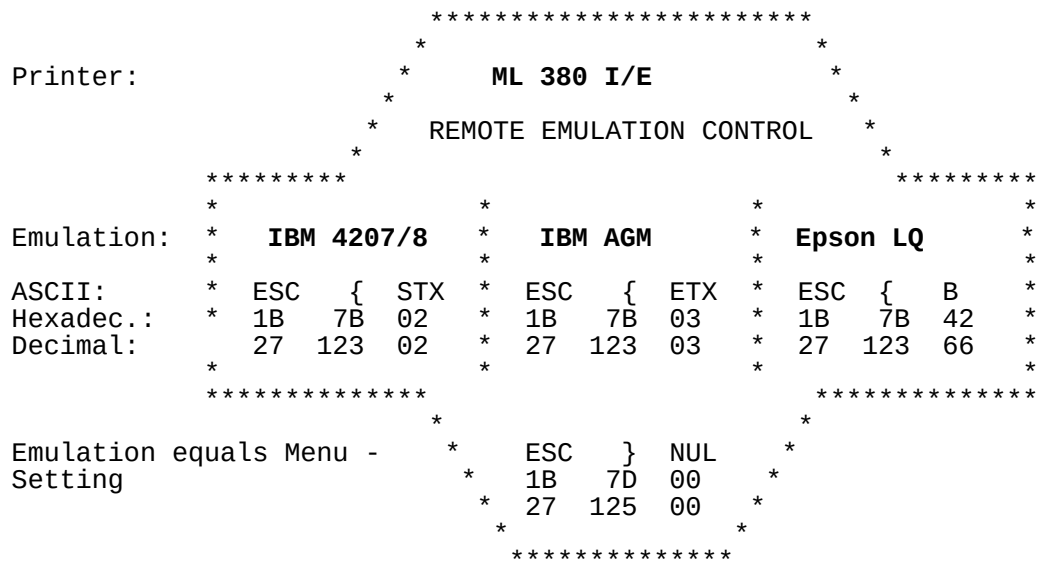
RS-232 C Interface
Art.-Nr.: 0639011



EMULATION SELECT COMMAND:

The Command is defined as follows: ASCII : ESC { 'n'

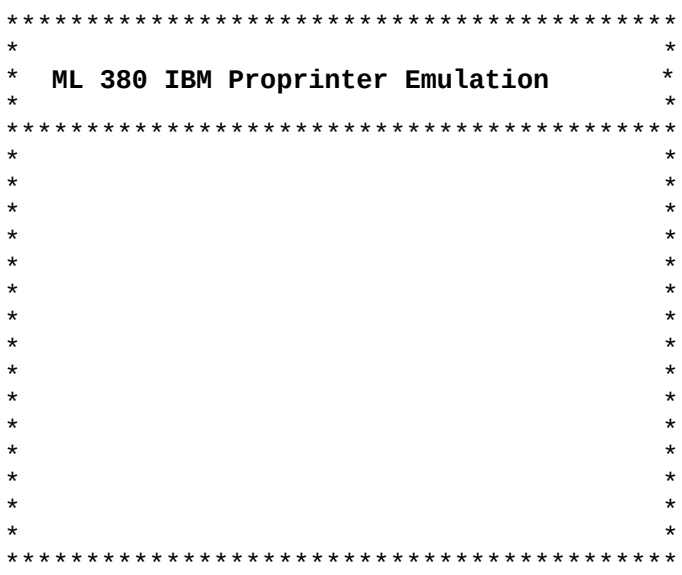
		HEX			
	'n' =	00	IBM	General	(Proprinter 4207/8)
	'n' =	01	---		Current Emulation /no change
*)	'n' =	02	IBM	PPR	Proprinter 4207/08
*)	'n' =	03	IBM		Alternate Graphic Mode (AGM)
	'n' =	40	EPSON	General	(Epson LQ)
	'n' =	41	---		Current Emulation /no change
*)	'n' =	42	EPSON	LQ	Epson LQ

*) Note: Normaly use only marked commands!

EMULATION RESET COMMAND:

The Command is defined as follows: ASCII : ESC } NUL
HEX: 1B 7D 00
DEC: 27 125 00

This command resets the printer to the Emulation selected in the MENU.
The printer is set to the same status as listed above by sending an Emulation change command.


ML 380 IBM Proprinter Emulation

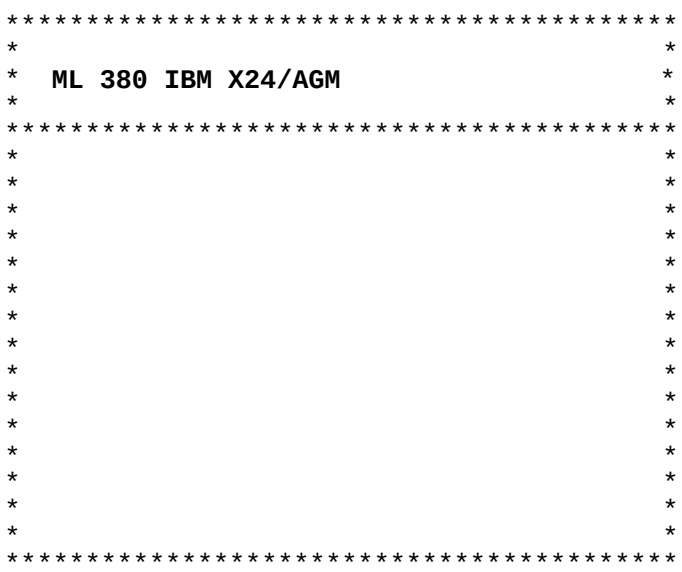
FUNCTION	COMMENT	ASCII	HEXADECIMAL
ALTERNATE GRAPHICS MODE			
VAR. LINE SPACING n/72"	WITHOUT ESC.2 !	ESC A n	1B 41 n
CHARACTER SET			
IBM CHARACTER SET I		ESC 7	1B 37
IBM CHARACTER SET II		ESC 6	1B 36
NATIONAL CHARACTER SET		ESC ! n	1B 21 n
PRINT FROM ALL CHAR. SET	ONE CHARACTER ONLY	ESC ^	1B 5E
PRINT FROM ALL CHAR. SET	CONTINUOUSLY	ESC \ n1 n2	1B 5C n1 n2
COMPOSITE COMMANDS			
PRINT MODE SELECTION		ESC I n	1B 49 n
CUT SHEET FEEDER			
CSF EJECT		ESC EM R	1B 19 52
CSF INSERT		ESC EM I	1B 19 49
DOWNLINE LOADABLE CHR.GEN			
COPY STD SET TO DLL CG		ESC $	1B 24
LOAD PPR DLL CG		ESC = n1 n2 # a1 ...	1B 3D n1 n2 23 n1 .
EXECUTION			
BACKSPACE		BS	08
CARRIAGE RETURN		CR	0D
CLEAR BUFFER		CAN	18
DESELECT PRINTER	SELECT BY SEL-KEY	ESC j	1B 6A
FORM FEED		FF	0C
LINE FEED		LF	0A
LINE FEED, REVERSE		ESC]	1B 5D
PRINT SUPPRESS OFF		DC1	11
PRINT SUPPRESS ON	NO PRINT UNTIL "DC1"	ESC Q CAN	1B 51 18
VAR. LINE FEED n/216"	ONE LINE ONLY	ESC J n	1B 4A n
VAR. LINE FEED n/360"		ESC % 4 n	1B 25 34 n
FORMATTING			
CANCEL VTABS,SET HTABS 8.		ESC R	1B 52
FORM LENGTH BY INCHES	ALSO SETS TOF	ESC C NUL n	1B 43 00 n
FORM LENGTH BY LINES	ALSO SETS TOF	ESC C n	1B 43 n
HORIZONTAL TABULATOR		HT	09
HTABS CLEAR		ESC D NUL	1B 44 00
HTABS SET BY CHARACTERS		ESC D n1-nk NUL	1B 44 n1-nk 00
INDENTING RELATIVE	IN n/120"	ESC d n1 n2	1B 64 n1 n2
MARGIN SET	BY CHARACTER COLUMNS	ESC X n1 n2	1B 58 n1 n2
SKIP OVER PERFORATION	BY LINES	ESC N n	1B 4E n

SKIP OVER PERFORATION OFF	ESC O	1B 4F
TOF SET	ESC 4	1B 34
VERTICAL TABULATOR CLEAR	ESC B NUL	1B 42 00
VERTICAL TABULATOR SET	ESC B n1...n64 NUL	1B 42 n1...n64 00
VERTICAL TABULATOR SKIP SAME AS LF IF NO TAB	VT	0B

GRAPHICS, BIT IMAGE

DENSITY DOUBLE	120 * 72 DPI	ESC Y n1 n2	1B 59 n1 n2
DENSITY DOUBLE HALF SPEED	120 * 72 DPI	ESC L n1 n2	1B 4C n1 n2
DENSITY QUADRUPLE	240 * 72 DPI	ESC Z n1 n2	1B 5A n1 n2
DENSITY SINGLE	60 * 72 DPI	ESC K n1 n2	1B 4B n1 n2
SELECT 8 BIT GRAPHICS	AGM ONLY !!!	ESC * m n1 n2 v1-vk	1B 2A m n1 n2 v1-vk

FUNCTION	COMMENT	ASCII	HEXADECIMAL
LINE SPACING			
6 LPI	WITHOUT PREV. ESC An	ESC 2	1B 32
8 LPI		ESC 0	1B 30
ACTIVATE ESC A n SPACING	NOT IN AGM,=>6 LPI	ESC 2	1B 32
LINE SPACING 7/72"	FOR 7 BIT GRAPHICS	ESC 1	1B 31
SET BASE FOR ESC J, ESC 3		ESC [\ EOT NUL NUL.	1B 5B 5C 04 00 00 .
VAR. LINE SPACING n/216"		ESC 3 n	1B 33 n
VAR. LINE SPACING n/360"		ESC % 8 n	1B 25 38 n
VAR. LINE SPACING n/72"	ESC 2 MUST FOLLOW !!	ESC A n	1B 41 n
MISCELLANEOUS			
AUTO LF OFF		ESC 5 0	1B 35 30
AUTO LF ON		ESC 5 1	1B 35 31
PRINT BIDIRECTIONAL		ESC U 0	1B 55 30
PRINT UNIDIRECTIONAL		ESC U 1	1B 55 31
PRINT MODE			
10 CPI	PICA	DC2	12
12 CPI	ELITE	ESC :	1B 3A
15 CPI		ESC g	1B 67
17 CPI	FINE	SI	0F
20 CPI		ESC SI	1B 0F
DOUBLE HEIGHT CHARACTERS,	ALSO DOUBLE WIDTH	ESC [@ n1 n2 m1...	1B 5B 40 n1 n2 m1..
EMPHASIZED OFF		ESC F	1B 46
EMPHASIZED ON		ESC E	1B 45
ENHANCED OFF	DOUBLE STRIKE	ESC H	1B 48
ENHANCED ON	DOUBLE STRIKE	ESC G	1B 47
ITALICS (SLANT) OFF		ESC % H	1B 25 48
ITALICS (SLANT) ON		ESC % G	1B 25 47
OVERSCORE OFF		ESC _ 0	1B 5F 30
OVERSCORE ON		ESC _ 1	1B 5F 31
PROPORTIONAL SPACING OFF		ESC P 0	1B 50 30
PROPORTIONAL SPACING ON		ESC P 1	1B 50 31
SUBSCRIPT OFF	ALSO SUPERSCRIPT OFF	ESC T	1B 54
SUBSCRIPT ON	SOH OR ANY ODD NO.	ESC S 1	1B 53 31
SUPERSCRIPT OFF	ALSO SUBSCRIPT OFF	ESC T	1B 54
SUPERSCRIPT ON	NUL OR ANY EVEN NO.	ESC S 0	1B 53 30
UNDERLINE OFF	UNDERSCORE	ESC - 0	1B 2D 30
UNDERLINE ON	UNDERSCORE	ESC - 1	1B 2D 31
WIDTH DOUBLE	FOR ONE LINE ONLY	SO	0E
WIDTH DOUBLE OFF		ESC W 0	1B 57 30
WIDTH DOUBLE OFF	BEFORE END OF LINE	DC4	14
WIDTH DOUBLE ON		ESC W 1	1B 57 31


ML 380 IBM X24/AGM

FUNCTION	COMMENT	ASCII	HEXADECIMAL
ALTERNATE GRAPHICS MODE			
VAR. LINE SPACING n/60"	WITHOUT ESC.2 !	ESC A n	1B 41 n
CHARACTER SET			
IBM CHARACTER SET I		ESC 7	1B 37
IBM CHARACTER SET II		ESC 6	1B 36
NATIONAL CHARACTER SET		ESC ! n	1B 21 n
PRINT FROM ALL CHAR. SET	ONE CHARACTER ONLY	ESC ^ n	1B 5E n
PRINT FROM ALL CHAR. SET	CONTINUOUSLY	ESC \ n1 n2	1B 5C n1 n2
COMPOSITE COMMANDS			
PRINT MODE SELECTION		ESC I n	1B 49 n
CUT SHEET FEEDER			
CSF EJECT		ESC EM R	1B 19 52
CSF INSERT		ESC EM I	1B 19 49
DOWNLINE LOADABLE CHR.GEN			
COPY STD SET TO DLL CG		ESC $	1B 24
LOAD PPR DLL CG		ESC = n1 n2 # a1 ...	1B 3D n1 n2 23 n1 ..
EXECUTION			
BACKSPACE		BS	08
CARRIAGE RETURN		CR	0D
CLEAR BUFFER		CAN	18
DESELECT PRINTER	SELECT BY SEL-KEY	ESC j	1B 6A
FORM FEED		FF	0C
LINE FEED		LF	0A
LINE FEED, REVERSE		ESC]	1B 5D
PRINT SUPPRESS OFF		DC1	11
PRINT SUPPRESS ON	NO PRINT UNTIL "DC1"	ESC Q CAN	1B 51 18
VAR. LINE FEED n/180"	ONE LINE ONLY	ESC J n	1B 4A n
VAR. LINE FEED n/360"		ESC % 4 n	1B 25 34 n
FORMATTING			
CANCEL VTABS,SET HTABS 8.		ESC R	1B 52
FORM LENGTH BY INCHES	ALSO SETS TOF	ESC C NUL n	1B 43 00 n
FORM LENGTH BY LINES	ALSO SETS TOF	ESC C n	1B 43 n
HORIZONTAL TABULATOR		HT	09
HTABS CLEAR		ESC D NUL	1B 44 00
HTABS SET BY CHARACTERS		ESC D n1-nk NUL	1B 44 n1-nk 00
INDENTING RELATIVE	IN n/120"	ESC d n1 n2	1B 64 n1 n2
MARGIN SET	BY CHARACTER COLUMNS	ESC X n1 n2	1B 58 n1 n2
SKIP OVER PERFORATION	BY LINES	ESC N n	1B 4E n
SKIP OVER PERFORATION OFF		ESC O	1B 4F

TOF SET	ESC 4	1B 34
VERTICAL TABULATOR CLEAR	ESC B NUL	1B 42 00
VERTICAL TABULATOR SET	ESC B n1...n64 NUL	1B 42 n1...n64 00
VERTICAL TABULATOR SKIP SAME AS LF IF NO TAB	VT	0B

GRAPHICS, BIT IMAGE
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DENSITY DOUBLE	120 * 72 DPI	ESC Y n1 n2	1B 59 n1 n2
DENSITY DOUBLE HALF SPEED	120 * 72 DPI	ESC L n1 n2	1B 4C n1 n2
DENSITY QUADRUPLE	240 * 72 DPI	ESC Z n1 n2	1B 5A n1 n2
DENSITY SINGLE	60 * 72 DPI	ESC K n1 n2	1B 4B n1 n2
SELECT 8 BIT GRAPHICS	AGM ONLY !!!	ESC * m n1 n2 v1-vk	1B 2A m n1 n2 v1-vk

FUNCTION	COMMENT	ASCII	HEXADECIMAL
LINE SPACING			
6 LPI	WITHOUT PREV. ESC An	ESC 2	1B 32
8 LPI		ESC 0	1B 30
LINE SPACING 7/72"	FOR 7 BIT GRAPHICS	ESC 1	1B 31
SET BASE FOR ESC J, ESC 3		ESC [\ EOT NUL NUL.	1B 5B 5C 04 00 00 ..
VAR. LINE SPACING n/216"		ESC 3 n	1B 33 n
VAR. LINE SPACING n/360"		ESC % 8 n	1B 25 38 n
VAR. LINE SPACING n/72"	ESC.2 MUST FOLLOW !!	ESC A n	1B 41 n
MISCELLANEOUS			
AUTO LF OFF		ESC 5 0	1B 35 30
AUTO LF ON		ESC 5 1	1B 35 31
PRINT BIDIRECTIONAL		ESC U 0	1B 55 30
PRINT UNIDIRECTIONAL		ESC U 1	1B 55 31
PRINT MODE			
10 CPI	PICA	DC2	12
12 CPI	ELITE	ESC :	1B 3A
15 CPI		ESC g	1B 67
17 CPI	FINE	SI	0F
20 CPI		ESC SI	1B 0F
DOUBLE HEIGHT CHARACTERS	ALSO DOUBLE WIDTH	ESC [@ n1 n2 m1...	1B 5B 40 n1 n2 m1...
EMPHASIZED OFF		ESC F	1B 46
EMPHASIZED ON		ESC E	1B 45
ENHANCED OFF	DOUBLE STRIKE	ESC H	1B 48
ENHANCED ON	DOUBLE STRIKE	ESC G	1B 47
ITALICS (SLANT) OFF		ESC % H	1B 25 48
ITALICS (SLANT) ON		ESC % G	1B 25 47
OVERSCORE OFF		ESC _ 0	1B 5F 30
OVERSCORE ON		ESC _ 1	1B 5F 31
PROPORTIONAL SPACING OFF		ESC P 0	1B 50 30
PROPORTIONAL SPACING ON		ESC P 1	1B 50 31
SUBSCRIPT OFF	ALSO SUPERSCRIPT OFF	ESC T	1B 54
SUBSCRIPT ON	SOH OR ANY ODD NO.	ESC S 1	1B 53 31
SUPERSCRIPT OFF	ALSO SUBSCRIPT OFF	ESC T	1B 54
SUPERSCRIPT ON	NUL OR ANY EVEN NO.	ESC S 0	1B 53 30
UNDERLINE OFF	UNDERSCORE	ESC - 0	1B 2D 30
UNDERLINE ON	UNDERSCORE	ESC - 1	1B 2D 31
WIDTH DOUBLE	FOR ONE LINE ONLY	SO	0E
WIDTH DOUBLE OFF		ESC W 0	1B 57 30
WIDTH DOUBLE OFF	BEFORE END OF LINE	DC4	14
WIDTH DOUBLE ON		ESC W 1	1B 57 31

I. Proportional characters: Width Table Firmware:

für NORMAL und KURSIV identisch:

Proportional: ESC P1 ON, ESC P0 OFF
Kursiv: ESC %G ON, ESC %H OFF

CHARACTER CODE			SETWIDTH
HEX	DEC	OCT	#/120"
00	000	000	10
01	001	001	10
02	002	002	10
03	003	003	10
04	004	004	10
05	005	005	10
06	006	006	10
07	007	007	10
08	008	010	10
09	009	011	10
0A	010	012	10
0B	011	013	10
0C	012	014	10
0D	013	015	10
0E	014	016	10
0F	015	017	10
10	016	020	10
11	017	021	10
12	018	022	10
13	019	023	10
14	020	024	10
15	021	025	10
16	022	026	10
17	023	027	10
18	024	030	10
19	025	031	10
1A	026	032	10
1B	027	033	10
1C	028	034	10
1D	029	035	10
1E	030	036	10
1F	031	037	10
20	032	040	10
21	033	041	10
22	034	042	10
23	035	043	10
24	036	044	10
25	037	045	10
26	038	046	12
27	039	047	06
28	040	050	10

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
29	-	041	_	051	=	10
2A	-	042	_	052	=	10
2B	-	043	_	053	=	10
2C	-	044	_	054	=	10
2D	-	045	_	055	=	10
2E	-	046	_	056	=	10
2F	-	047	_	057	=	10
30	-	048	_	060	=	10
31	-	049	_	061	=	10
32	-	050	_	062	=	10
33	-	051	_	063	=	10
34	-	052	_	064	=	10
35	-	053	_	065	=	10
36	-	054	_	066	=	10
37	-	055	_	067	=	10
38	-	056	_	070	=	10
39	-	057	_	071	=	10
3A	-	058	_	072	=	10
3B	-	059	_	073	=	10
3C	-	060	_	074	=	10
3D	-	061	_	075	=	10
3E	-	062	_	076	=	10
3F	-	063	_	077	=	10
40	-	064	_	100	=	10
41	-	065	_	101	=	14
42	-	066	_	102	=	14
43	-	067	_	103	=	14
44	-	068	_	104	=	14
45	-	069	_	105	=	12
46	-	070	_	106	=	12
47	-	071	_	107	=	14
48	-	072	_	110	=	14
49	-	073	_	111	=	08
4A	-	074	_	112	=	10
4B	-	075	_	113	=	14
4C	-	076	_	114	=	12
4D	-	077	_	115	=	14
4E	-	078	_	116	=	14
4F	-	079	_	117	=	14
50	-	080	_	120	=	12
51	-	081	_	121	=	14
52	-	082	_	122	=	14
53	-	083	_	123	=	12
54	-	084	_	124	=	14
55	-	085	_	125	=	14
56	-	086	_	126	=	14
57	-	087	_	127	=	14
58	-	088	_	130	=	14
59	-	089	_	131	=	14
5A	-	090	_	132	=	12

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
5B	-	091	_	133	=	10
5C	-	092	_	134	=	10
5D	-	093	_	135	=	10
5E	-	094	_	136	=	10
5F	-	095	_	137	=	10
60	-	096	_	140	=	10
61	-	097	_	141	=	10
62	-	098	_	142	=	12
63	-	099	_	143	=	10
64	-	100	_	144	=	12
65	-	101	_	145	=	10
66	-	102	_	146	=	08
67	-	103	_	147	=	12
68	-	104	_	150	=	12
69	-	105	_	151	=	06
6A	-	106	_	152	=	06
6B	-	107	_	153	=	12
6C	-	108	_	154	=	06
6D	-	109	_	155	=	14
6E	-	110	_	156	=	12
6F	-	111	_	157	=	10
70	-	112	_	160	=	12
71	-	113	_	161	=	12
72	-	114	_	162	=	10
73	-	115	_	163	=	10
74	-	116	_	164	=	08
75	-	117	_	165	=	12
76	-	118	_	166	=	12
77	-	119	_	167	=	14
78	-	120	_	170	=	12
79	-	121	_	171	=	12
7A	-	122	_	172	=	10
7B	-	123	_	173	=	10
7C	-	124	_	174	=	10
7D	-	125	_	175	=	10
7E	-	126	_	176	=	10
7F	-	127	_	177	=	10
80	-	*128*	_	*200*	=	*14*
81	-	*129*	_	*201*	=	*12*
82	-	*130*	_	*202*	=	*10*
83	-	*131*	_	*203*	=	*10*
84	-	*132*	_	*204*	=	*10*
85	-	*133*	_	*205*	=	*10*
86	-	*134*	_	*206*	=	*10*
87	-	*135*	_	*207*	=	*10*
88	-	*136*	_	*210*	=	*10*
89	-	*137*	_	*211*	=	*10*
8A	-	*138*	_	*212*	=	*10*
8B	-	*139*	_	*213*	=	*06*
8C	-	*140*	_	*214*	=	*06*

CHARACTER CODE							SETWIDTH
HEX		DEC		OCT			#/120"
8D	-	*141*	_	*215*	=		*06*
8E	-	*142*	_	*216*	=		*14*
8F	-	*143*	_	*217*	=		*14*
90	-	*144*	_	*220*	=		*12*
91	-	*145*	_	*221*	=		*14*
92	-	*146*	_	*222*	=		*14*
93	-	*147*	_	*223*	=		*10*
94	-	*148*	_	*224*	=		*10*
95	-	*149*	_	*225*	=		*10*
96	-	*150*	_	*226*	=		*12*
97	-	*151*	_	*227*	=		*12*
98	-	*152*	_	*230*	=		*12*
99	-	*153*	_	*231*	=		*14*
9A	-	*154*	_	*232*	=		*14*
9B	-	*155*	_	*233*	=		*10*
9C	-	*156*	_	*234*	=		*10*
9D	-	*157*	_	*235*	=		*10*
9E	-	*158*	_	*236*	=		*14*
9F	-	*159*	_	*237*	=		*10*
A0	-	*160*	_	*240*	=		*10*
A1	-	*161*	_	*241*	=		*06*
A2	-	*162*	_	*242*	=		*10*
A3	-	*163*	_	*243*	=		*12*
A4	-	*164*	_	*244*	=		*12*
A5	-	*165*	_	*245*	=		*14*
A6	-	*166*	_	*246*	=		*10*
A7	-	*167*	_	*247*	=		*10*
A8	-	*168*	_	*250*	=		*10*
A9	-	*169*	_	*251*	=		*10*
AA	-	*170*	_	*252*	=		*10*
AB	-	*171*	_	*253*	=		*10*
AC	-	*172*	_	*254*	=		*10*
AD	-	*173*	_	*255*	=		*10*
AE	-	*174*	_	*256*	=		*14*
AF	-	*175*	_	*257*	=		*14*
B0	-	*176*	_	*260*	=		*10*
B1	-	*177*	_	*261*	=		*10*
B2	-	*178*	_	*262*	=		*10*
B3	-	*179*	_	*263*	=		*10*
B4	-	*180*	_	*264*	=		*10*
B5	-	*181*	_	*265*	=		*10*
B6	-	*182*	_	*266*	=		*10*
B7	-	*183*	_	*267*	=		*10*
B8	-	*184*	_	*270*	=		*10*
B9	-	*185*	_	*271*	=		*10*
BA	-	*186*	_	*272*	=		*10*
BB	-	*187*	_	*273*	=		*10*
BC	-	*188*	_	*274*	=		*10*
BD	-	*189*	_	*275*	=		*10*

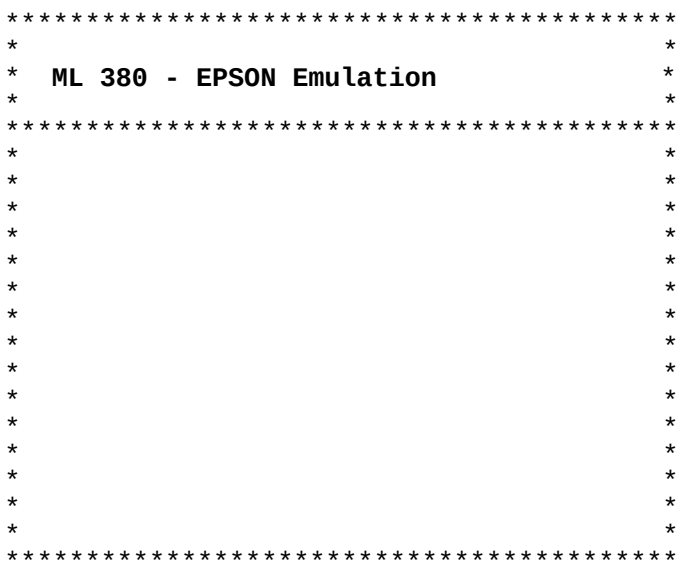
CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
BE	-	*190*	_	*276*	=	*10*
BF	-	*191*	_	*277*	=	*10*
C0	-	*192*	_	*300*	=	*10*
C1	-	*193*	_	*301*	=	*10*
C2	-	*194*	_	*302*	=	*10*
C3	-	*195*	_	*303*	=	*10*
C4	-	*196*	_	*304*	=	*10*
C5	-	*197*	_	*305*	=	*10*
C6	-	*198*	_	*306*	=	*10*
C7	-	*199*	_	*307*	=	*10*
C8	-	*200*	_	*310*	=	*10*
C9	-	*201*	_	*311*	=	*10*
CA	-	*202*	_	*312*	=	*10*
CB	-	*203*	_	*313*	=	*10*
CC	-	*204*	_	*314*	=	*10*
CD	-	*205*	_	*315*	=	*10*
CE	-	*206*	_	*316*	=	*10*
CF	-	*207*	_	*317*	=	*10*
D0	-	*208*	_	*320*	=	*10*
D1	-	*209*	_	*321*	=	*10*
D2	-	*210*	_	*322*	=	*10*
D3	-	*211*	_	*323*	=	*10*
D4	-	*212*	_	*324*	=	*10*
D5	-	*213*	_	*325*	=	*10*
D6	-	*214*	_	*326*	=	*10*
D7	-	*215*	_	*327*	=	*10*
D8	-	*216*	_	*330*	=	*10*
D9	-	*217*	_	*331*	=	*10*
DA	-	*218*	_	*332*	=	*10*
DB	-	*219*	_	*333*	=	*10*
DC	-	*220*	_	*334*	=	*10*
DD	-	*221*	_	*335*	=	*10*
DE	-	*222*	_	*336*	=	*10*
DF	-	*223*	_	*337*	=	*10*
E0	-	*224*	_	*340*	=	*10*
E1	-	*225*	_	*341*	=	*12*
E2	-	*226*	_	*342*	=	*12*
E3	-	*227*	_	*343*	=	*12*
E4	-	*228*	_	*344*	=	*14*
E5	-	*229*	_	*345*	=	*12*
E6	-	*230*	_	*346*	=	*12*
E7	-	*231*	_	*347*	=	*10*
E8	-	*232*	_	*350*	=	*14*
E9	-	*233*	_	*351*	=	*14*
EA	-	*234*	_	*352*	=	*14*
EB	-	*235*	_	*353*	=	*10*
EC	-	*236*	_	*354*	=	*10*
ED	-	*237*	_	*355*	=	*14*
EE	-	*238*	_	*356*	=	*10*

CHARACTER CODE				SETWIDTH
HEX		DEC	OCT	#/120"
EF	-	*239*	*357*	*10*
F0	-	*240*	*360*	*10*
F1	-	*241*	*361*	*10*
F2	-	*242*	*362*	*10*
F3	-	*243*	*363*	*10*
F4	-	*244*	*364*	*10*
F5	-	*245*	*365*	*10*
F6	-	*246*	*366*	*10*
F7	-	*247*	*367*	*10*
F8	-	*248*	*370*	*10*
F9	-	*249*	*371*	*10*
FA	-	*250*	*372*	*10*
FB	-	*251*	*373*	*10*
FC	-	*252*	*374*	*10*
FD	-	*253*	*375*	*10*
FE	-	*254*	*376*	*10*
FF	-	*255*	*377*	*10*

ISO 380 Proprinter (Werte für Normal und Italics identisch)

Italics = Kursiv

Position	1	2	3	4	6	7	8	9	10	11	12	13	14	15
Dec. Code	35	36	38	64	91	92	93	94	95	96	123	124	125	126
ASCII ESC! n														
ASCII (0) 64	10	10	12	10	10	10	10	10	10	10	10	10	10	10
ASCII (O) 65	10	10	12	10	10	10	10	10	10	10	10	10	10	10
BRITISH 66	10	10	12	10	10	10	10	10	10	10	10	10	10	10
GERMAN 67	10	10	12	10	14	14	14	10	10	10	10	10	12	12
FRENCH 68	10	10	12	10	10	10	10	10	10	10	10	12	10	10
SWEDISH 1 69	10	10	12	12	14	14	14	14	10	10	10	10	10	12
DANISH 70	10	10	12	10	14	12	14	14	10	10	14	10	10	12
NORWEGIAN 71	10	10	12	10	14	12	14	10	10	10	14	10	10	10
DUTCH 72	10	10	12	10	10	14	10	10	10	10	10	12	10	10
ITALIAN 73	10	10	12	10	10	10	10	10	10	12	10	10	10	06
FR-KANADA 74	12	10	10	10	10	10	10	06	06	10	10	12	10	12
SPANISH 75	10	10	12	10	14	12	10	12	10	10	10	06	10	12
SWEDISH 2 76	10	10	12	12	14	14	14	14	10	10	10	10	10	12
SWEDISH 3 77	10	10	12	12	14	14	14	14	10	10	10	10	10	12
SWEDISH 4 78	10	10	12	12	14	14	14	10	10	10	10	10	10	12
Turkish 79	10	10	12	12	06	10	12	14	10	10	08	14	14	14
Swiss 1 80	10	10	12	10	10	10	10	10	10	10	10	10	12	10
Swiss 2 81	10	10	12	10	10	10	10	10	10	10	10	10	12	10


ML 380 - EPSON Emulation

FUNCTION	COMMENT	ASCII	HEXADECIMAL
CHARACTER SET			
CHARACTER SET ITALICS		ESC t NUL	1B 74 00
CHR. SET LINE GRAPHICS		ESC t SOH	1B 74 01
CODE EXPANSION OFF	128-159+255 CONTROLS	ESC 7	1B 37
CODE EXPANSION ON	128-159+255 PRINTABL	ESC 6	1B 36
NATIONAL CHARACTER SET		ESC R n	1B 52 n
COMPOSITE COMMANDS			
PRINT MODE SELECTION		ESC ! n	1B 21 n
CUT SHEET FEEDER			
EJECT SINGLE SHEET		ESC EM R	1B 19 52
INSERT SINGLE SHEET		ESC EM I	1B 19 49
DOWNLINE LOADABLE CHR.GEN			
COPY STD SET TO DLL CG		ESC : NUL NUL NUL	1B 3A 00 00 00
DLL CHR.SET DESELECT		ESC % 0	1B 25 30
DLL CHR.SET SELECT		ESC % 1	1B 25 31
LOAD DLL		ESC & m n1 n2 d0 d1.	1B 26 m n1 n2 d0 d1.
EXECUTION			
BACKSPACE		BS	08
CARRIAGE RETURN		CR	0D
CLEAR BUFFER		CAN	18
CLEAR BUFFER/MASTER RESET		ESC @	1B 40
DELETE LAST CHARACTER	IN BUFFER	DEL	7F
FORM FEED		FF	0C
LINE FEED		LF	0A
PRINT SUPPRESS OFF		DC1	11
PRINT SUPPRESS ON	NO PRINT UNTIL "DC1"	DC3	13
VAR. LINE FEED n/160"	N = 0 TO 255	ESC J n	1B 4A n
VAR. LINE FEED n/360"	n = 0 TO 255	ESC] n	1B 5D n
FORMATTING			
DOT POSITION ABSOLUTE	IN 1/60" UNITS	ESC $ n1 n2	1B 24 n1 n2
DOT POSITION RELATIVE	IN 1/120" UNITS	ESC \ n1 n2	1B 5C n1 n2
FORM LENGTH BY INCHES	n = 1 TO 22	ESC C NUL n	1B 43 00 n
FORM LENGTH BY LINES	n = 1 - 127	ESC C n	1B 43 n
HORIZONTAL TABULATOR SKIP		HT	09
HTABS CLEAR		ESC D NUL	1B 44 00
HTABS SET BY CHARACTERS		ESC D n1...n32 NUL	1B 44 n1...n32 00
MARGIN SET LEFT		ESC l n	1B 6C n
MARGIN SET RIGHT		ESC Q n	1B 51 n
SET REL. VERT./HORIZ.TABS	n=0=H n=1=V	ESC e n m	1B 65 n m
SET REL.VERT/HOR.PRINTPOS	n=0=H n=1=V	ESC f n m	1B 66 n m
SKIP OVER PERFORATION	n=1 TO 127 LINES	ESC N n	1B 4E n
SKIP OVER PERFORATION OFF		ESC O	1B 4F

VERTICAL TABULATOR CANCEL		ESC B NUL	1B 42 00
VERTICAL TABULATOR SET		ESC B n1...n16 NUL	1B 42 n1...n16 00
VERTICAL TABULATOR SKIP SAME AS LF IF NO TAB		VT	0B
VFU CHANNEL SELECT	n = 0 to 7	ESC / n	1B 2F n
VFU LOAD	k = 1 to 16	ESC b n m1...mk NUL	1B 62 n m1...mk 00

GRAPHICS BIT IMAGE
==========

DENSITY DOUBLE	120 * 72 DPI	ESC Y	1B 59
DENSITY DOUBLE,HALF SPEED	120 * 72 DPI	ESC L	1B 4C
DENSITY QUADRUPLE	240 * 72 DPI	ESC Z	1B 5A
DENSITY SINGLE	60 * 72 DPI	ESC K	1B 48
REASSIGN GRAPHICS MODE ESC * TO ESC K,L,Y,Z		ESC ? s n	1B 3F s n
SELECT 8 BIT GRAPHICS		ESC * m n1 n2 v1-vk	1B 2A m n1 n2 v1-vk

NCTION	COMMENT	ASCII	HEXADECIMAL
LINE SPACING			
6 LPI		ESC 2	1B 32
8 LPI		ESC 0	1B 30
VAR. LINE SPACING n/180"	n = 0 TO 255	ESC 3 n	1B 33 n
VAR. LINE SPACING n/360"	n = 0 TO 255	ESC [n	1B 5B n
VAR. LINE SPACING n/60"	N = 0 TO 85	ESC A n	1B 41 n
MISCELLANEOUS			
MSB SET 0		ESC =	1B 3D
MSB SET 1		ESC >	1B 3E
MSB SETTING CANCEL		ESC #	1B 23
UNIDIRECTIONAL PRINT OFF		ESC U 0	1B 55 30
UNIDIRECTIONAL PRINT ON		ESC U 1	1B 55 31
UNIDIR. PRINT (HOME HEAD) FOR ONE LINE ONLY		ESC <	1B 3C
PRINT MODE			
10 CPI	PICA	ESC P	1B 50
12 CPI	ELITE	ESC M	1B 4D
15 CPI		ESC g	1B 67
CONDENSED MODE RESET	20=>12, 17=>10 CPI	DC2	12
CONDENSED MODE SET	10=>17, 12=>20 CPI	SI	0F
CONDENSED MODE SET	10=>17, 12=>20 CPI	ESC SI	1B 0F
DESIGNATES NLQ MODE	LQ WITH 24 PINS	ESC x SOH	1B 78 01
DESIGNATES UTILITY MODE		ESC x NUL	1B 78 00
DOUBLE WIDTH OFF	BEFORE END OF LINE	DC4	14
DOUBLE WIDTH ON	FOR ONE LINE ONLY	SO	0E
DOUBLE WIDTH ON	FOR ONE LINE ONLY	ESC SO	1B 0E
EMPHASIZED OFF		ESC F	1B 46
EMPHASIZED ON		ESC E	1B 45
ENHANCED OFF	DOUBLE STRIKE	ESC H	1B 48
ENHANCED ON	DOUBLE STRIKE	ESC G	1B 47
HEIGHT DOUBLE OFF		ESC w NUL	1B 77 00
HEIGHT DOUBLE OFF		ESC US NUL	1B 1F 00
HEIGHT DOUBLE ON		ESC w SOH	1B 77 01
HEIGHT DOUBLE ON		ESC US SOH	1B 1F 01
ITALICS OFF		ESC 5	1B 35
ITALICS ON		ESC 4	1B 34
NLQ AUTO JUSTIFICATION	LEFT,MID,RIGHT,FULL	ESC a n	1B 61 n
PROPORTIONAL SPACING OFF		ESC p 0	1B 70 30
PROPORTIONAL SPACING ON		ESC p 1	1B 70 31
SELECT TYPESTYLE CART/RES		ESC k n	1B 68 n
COURIER	(RESIDENT n=STX)	ESC k STX	1B 68 02
HELVETTE	(RESIDENT n=SOH)	ESC k SOH	1B 68 01
ORATOR	(RESIDENT n=BEL)	ESC k BEL	1B 68 07
SPACE BETWEEN CHAR.	0<=N<=127 (FX:63)	ESC SP n	1B 20 n
SUBSCRIPT OFF	ALSO SUPERSCRIPT OFF	ESC T	1B 54
SUBSCRIPT ON		ESC S 1	1B 53 31
SUPERSCRIPT OFF	ALSO SUBSCRIPT OFF	ESC T	1B 54
SUPERSCRIPT ON		ESC S 0	1B 53 30
UNDERLINE OFF		ESC - 0	1B 2D 31
UNDERLINE ON		ESC - 1	1B 2D 31
WIDTH DOUBLE OFF		ESC W 0	1B 57 30
WIDTH DOUBLE ON		ESC W 1	1B 57 31
OUTLINE SHADOW		ESC q n	1B 71 n
NORMAL PRINT MODE		ESC q NUL	1B 71 00

OUTLINE	ESC q SOH	1B 71 01
SHADOW	ESC q STX	1B 71 02
OUTLINE AND SHADOW	ESC q ETX	1B 71 03

I. Proportional characters: Width Table Firmware:

Normal/*Kursiv* #/360 inch
***) Compressed #/(360*2) inch**

Proportional Spacing : (ESC p1 - ON, ESC p0 - OFF)
Italics : (ESC 4 - ON, ESC 5 - OFF)

CHARACTER CODE			SETWIDTH
HEX	DEC	OCT	#/120"
00	000	000	--
01	001	001	--
02	002	002	--
03	003	003	--
04	004	004	--
05	005	005	--
06	006	006	--
07	007	007	--
08	008	010	--
09	009	011	--
0A	010	012	--
0B	011	013	--
0C	012	014	--
0D	013	015	--
0E	014	016	--
0F	015	017	--
10	016	020	--
11	017	021	--
12	018	022	--
13	019	023	--
14	020	024	--
15	021	025	30
16	022	026	--
17	023	027	--
18	024	030	--
19	025	031	--
1A	026	032	--
1B	027	033	--
1C	028	034	--
1D	029	035	--
1E	030	036	--
1F	031	037	--
20	032	040	30
21	033	041	18
22	034	042	30
23	035	043	30
24	036	044	30
25	037	045	36
26	038	046	36

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
27	-	039	_	047	=	18
28	-	040	_	050	=	24
29	-	041	_	051	=	24
2A	-	042	_	052	=	30
2B	-	043	_	053	=	30
2C	-	044	_	054	=	18
2D	-	045	_	055	=	30
2E	-	046	_	056	=	18
2F	-	047	_	057	=	30
30	-	048	_	060	=	30
31	-	049	_	061	=	30
32	-	050	_	062	=	30
33	-	051	_	063	=	30
34	-	052	_	064	=	30
35	-	053	_	065	=	30
36	-	054	_	066	=	30
37	-	055	_	067	=	30
38	-	056	_	070	=	30
39	-	057	_	071	=	30
3A	-	058	_	072	=	18
3B	-	059	_	073	=	18
3C	-	060	_	074	=	30
3D	-	061	_	075	=	30
3E	-	062	_	076	=	30
3F	-	063	_	077	=	30
40	-	064	_	100	=	36
41	-	065	_	101	=	36
42	-	066	_	102	=	36
43	-	067	_	103	=	36
44	-	068	_	104	=	36
45	-	069	_	105	=	36
46	-	070	_	106	=	36
47	-	071	_	107	=	36
48	-	072	_	110	=	36
49	-	073	_	111	=	24
4A	-	074	_	112	=	30
4B	-	075	_	113	=	36
4C	-	076	_	114	=	36
4D	-	077	_	115	=	42
4E	-	078	_	116	=	36
4F	-	079	_	117	=	36
50	-	080	_	120	=	36
51	-	081	_	121	=	36
52	-	082	_	122	=	36
53	-	083	_	123	=	36
54	-	084	_	124	=	36
55	-	085	_	125	=	42
56	-	086	_	126	=	36
57	-	087	_	127	=	42

CHARACTER CODE					SETWIDTH
HEX		DEC	OCT		#/120"
58	-	088 _	130	=	36
59	-	089 _	131	=	36
5A	-	090 _	132	=	30
5B	-	091 _	133	=	24
5C	-	092 _	134	=	30
5D	-	093 _	135	=	24
5E	-	094 _	136	=	30
5F	-	095 _	137	=	30
60	-	096 _	140	=	18
61	-	097 _	141	=	30
62	-	098 _	142	=	36
63	-	099 _	143	=	30
64	-	100 _	144	=	36
65	-	101 _	145	=	30
66	-	102 _	146	=	24
67	-	103 _	147	=	36
68	-	104 _	150	=	36
69	-	105 _	151	=	18
6A	-	106 _	152	=	24
6B	-	107 _	153	=	36
6C	-	108 _	154	=	18
6D	-	109 _	155	=	42
6E	-	110 _	156	=	36
6F	-	111 _	157	=	30
70	-	112 _	160	=	36
71	-	113 _	161	=	36
72	-	114 _	162	=	30
73	-	115 _	163	=	30
74	-	116 _	164	=	24
75	-	117 _	165	=	36
76	-	118 _	166	=	36
77	-	119 _	167	=	42
78	-	120 _	170	=	30
79	-	121 _	171	=	36
7A	-	122 _	172	=	30
7B	-	123 _	173	=	24
7C	-	124 _	174	=	18
7D	-	125 _	175	=	24
7E	-	126 _	176	=	30
7F	-	127 _	177	=	00
80	-	*128 _*	*200*	=	*36*
81	-	*129 _*	*201*	=	*36*
82	-	*130 _*	*202*	=	*30*
83	-	*131 _*	*203*	=	*30*
84	-	*132 _*	*204*	=	*30*
85	-	*133 _*	*205*	=	*30*
86	-	*134 _*	*206*	=	*30*
87	-	*135 _*	*207*	=	*30*
88	-	*136 _*	*210*	=	*30*

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
89	-	*137*	_	*211*	=	*30*
8A	-	*138*	_	*212*	=	*30*
8B	-	*139*	_	*213*	=	*18*
8C	-	*140*	_	*214*	=	*18*
8D	-	*141*	_	*215*	=	*18*
8E	-	*142*	_	*216*	=	*36*
8F	-	*143*	_	*217*	=	*36*
90	-	*144*	_	*220*	=	*36*
91	-	*145*	_	*221*	=	*42*
92	-	*146*	_	*222*	=	*42*
93	-	*147*	_	*223*	=	*30*
94	-	*148*	_	*224*	=	*30*
95	-	*149*	_	*225*	=	*30*
96	-	*150*	_	*226*	=	*36*
97	-	*151*	_	*227*	=	*36*
98	-	*152*	_	*230*	=	*36*
99	-	*153*	_	*231*	=	*36*
9A	-	*154*	_	*232*	=	*42*
9B	-	*155*	_	*233*	=	*30*
9C	-	*156*	_	*234*	=	*30*
9D	-	*157*	_	*235*	=	*36*
9E	-	*158*	_	*236*	=	*42*
9F	-	*159*	_	*237*	=	*30*
A0	-	*160*	_	*240*	=	*30*
A1	-	*161*	_	*241*	=	*18*
A2	-	*162*	_	*242*	=	*30*
A3	-	*163*	_	*243*	=	*36*
A4	-	*164*	_	*244*	=	*36*
A5	-	*165*	_	*245*	=	*36*
A6	-	*166*	_	*246*	=	*30*
A7	-	*167*	_	*247*	=	*30*
A8	-	*168*	_	*250*	=	*30*
A9	-	*169*	_	*251*	=	*30*
AA	-	*170*	_	*252*	=	*30*
AB	-	*171*	_	*253*	=	*30*
AC	-	*172*	_	*254*	=	*30*
AD	-	*173*	_	*255*	=	*30*
AE	-	*174*	_	*256*	=	*30*
AF	-	*175*	_	*257*	=	*30*
B0	-	*176*	_	*260*	=	*30*
B1	-	*177*	_	*261*	=	*30*
B2	-	*178*	_	*262*	=	*30*
B3	-	*179*	_	*263*	=	*30*
B4	-	*180*	_	*264*	=	*30*
B5	-	*181*	_	*265*	=	*30*
B6	-	*182*	_	*266*	=	*30*
B7	-	*183*	_	*267*	=	*30*
B8	-	*184*	_	*270*	=	*30*
B9	-	*185*	_	*271*	=	*30*

CHARACTER CODE			SETWIDTH
HEX	DEC	OCT	#/120"
BA	*186*	*272*	*30*
BB	*187*	*273*	*30*
BC	*188*	*274*	*30*
BD	*189*	*275*	*30*
BE	*190*	*276*	*30*
BF	*191*	*277*	*30*
C0	*192*	*300*	*30*
C1	*193*	*301*	*30*
C2	*194*	*302*	*30*
C3	*195*	*303*	*30*
C4	*196*	*304*	*30*
C5	*197*	*305*	*30*
C6	*198*	*306*	*30*
C7	*199*	*307*	*30*
C8	*200*	*310*	*30*
C9	*201*	*311*	*30*
CA	*202*	*312*	*30*
CB	*203*	*313*	*30*
CC	*204*	*314*	*30*
CD	*205*	*315*	*30*
CE	*206*	*316*	*30*
CF	*207*	*317*	*30*
D0	*208*	*320*	*30*
D1	*209*	*321*	*30*
D2	*210*	*322*	*30*
D3	*211*	*323*	*30*
D4	*212*	*324*	*30*
D5	*213*	*325*	*30*
D6	*214*	*326*	*30*
D7	*215*	*327*	*30*
D8	*216*	*330*	*30*
D9	*217*	*331*	*30*
DA	*218*	*332*	*30*
DB	*219*	*333*	*30*
DC	*220*	*334*	*30*
DD	*221*	*335*	*30*
DE	*222*	*336*	*30*
DF	*223*	*337*	*30*
E0	*224*	*340*	*30*
E1	*225*	*341*	*30*
E2	*226*	*342*	*30*
E3	*227*	*343*	*30*
E4	*228*	*344*	*30*
E5	*229*	*345*	*30*
E6	*230*	*346*	*30*
E7	*231*	*347*	*30*
E8	*232*	*350*	*30*
E9	*233*	*351*	*30*
EA	*234*	*352*	*30*

CHARACTER CODE					SETWIDTH
HEX		DEC	OCT		#/120"
EB	-	*235*	*353*	=	*30*
EC	-	*236*	*354*	=	*30*
ED	-	*237*	*355*	=	*30*
EE	-	*238*	*356*	=	*30*
EF	-	*239*	*357*	=	*30*
F0	-	*240*	*360*	=	*30*
F1	-	*241*	*361*	=	*30*
F2	-	*242*	*362*	=	*30*
F3	-	*243*	*363*	=	*30*
F4	-	*244*	*364*	=	*30*
F5	-	*245*	*365*	=	*30*
F6	-	*246*	*366*	=	*30*
F7	-	*247*	*367*	=	*30*
F8	-	*248*	*370*	=	*30*
F9	-	*249*	*371*	=	*30*
FA	-	*250*	*372*	=	*30*
FB	-	*251*	*373*	=	*30*
FC	-	*252*	*374*	=	*30*
FD	-	*253*	*375*	=	*30*
FE	-	*254*	*376*	=	*30*
FF	-	*255*	*377*	=	*30*

ISO 380 EPSON Normal (#/360)
Compressed (#/(360*2))

Position		1	2	3	4	6	7	8	9	10	11	12	13	14	15
Decimal Code		35	36	38	64	91	92	93	94	95	96	123	124	125	126
Hexadec. ESC! n															
AMERICAN	00	30	30	36	36	24	30	24	30	30	18	24	18	24	30
FRENCH	01	30	30	36	30	24	30	30	30	30	18	24	36	30	30
GERMAN	02	30	30	36	30	36	36	42	30	30	18	30	30	36	36
BRITISH	03	30	30	36	36	24	30	24	30	30	18	24	18	24	30
DANISH I	04	30	30	36	36	42	36	36	30	30	18	42	30	30	30
SWEDISH I	05	30	30	36	36	36	36	36	42	30	30	30	30	30	36
ITALIAN	06	30	30	36	36	24	30	30	30	30	36	30	30	30	18
SPANISH I	07	42	30	36	36	30	36	30	30	30	18	30	36	24	30
JAPANESE	08	30	30	36	36	24	36	24	30	30	18	24	18	24	30
NORWEGIAN	09	30	30	36	36	42	36	36	42	30	30	42	30	30	36
DANISH II	0A	30	30	36	36	42	36	36	42	30	30	42	30	30	36
SPANISH II	0B	30	30	36	30	30	36	30	30	30	18	18	36	30	36
LATIN AMERIC	0C	30	30	36	30	30	36	30	30	30	36	18	36	30	36
FRENCH CAN	0D	36	30	30	30	30	30	30	18	18	30	30	36	30	36
DUTCH	0E	30	30	36	36	24	42	24	30	30	18	24	36	24	30
SWEDISH II	0F	30	30	36	36	36	36	36	42	30	30	30	30	30	36
SWEDISH III	10	30	30	36	36	36	36	36	42	30	30	30	30	30	36
SWEDISH IV	11	30	30	36	36	36	36	36	30	30	30	30	30	30	36
TURKISH	12	30	30	36	36	18	30	36	36	30	30	24	36	42	36
SWISS I	13	30	30	36	30	30	30	30	30	30	18	30	30	36	30
SWISS II	14	30	30	36	30	30	30	30	30	30	18	30	30	36	30

Value of n can also be between 30 - 39 hex equal to 00 - 09 hex !

I. Proportional characters: Width Table Firmware:

Super-/Subscript Normal/Kursiv #/360 inch
Super-/Subscript *) Compressed #/(360*2) inch

OKI
ML380/1

CHARACTER CODE			SETWIDTH	CHARACTER
HEX	DEC	OCT	*) #/360"	
00	000	000	=	--
01	001	001	=	--
02	002	002	=	--
03	003	003	=	--
04	004	004	=	--
05	005	005	=	--
06	006	006	=	--
07	007	007	=	--
08	008	010	=	--
09	009	011	=	--
0A	010	012	=	--
0B	011	013	=	--
0C	012	014	=	--
0D	013	015	=	--
0E	014	016	=	--
0F	015	017	=	--
10	016	020	=	--
11	017	021	=	--
12	018	022	=	--
13	019	023	=	--
14	020	024	=	--
15	021	025	=	20
16	022	026	=	--
17	023	027	=	--
18	024	030	=	--
19	025	031	=	--
1A	026	032	=	--
1B	027	033	=	--
1C	028	034	=	--
1D	029	035	=	--
1E	030	036	=	--
1F	031	037	=	--
20	032	040	=	20
21	033	041	=	12
22	034	042	=	20
23	035	043	=	20
24	036	044	=	20
25	037	045	=	24
26	038	046	=	24
27	039	047	=	12
28	040	050	=	16
29	041	051	=	16

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
2A	-	042	_	052	=	20
2B	-	043	_	053	=	20
2C	-	044	_	054	=	12
2D	-	045	_	055	=	20
2E	-	046	_	056	=	12
2F	-	047	_	057	=	20
30	-	048	_	060	=	20
31	-	049	_	061	=	20
32	-	050	_	062	=	20
33	-	051	_	063	=	20
34	-	052	_	064	=	20
35	-	053	_	065	=	20
36	-	054	_	066	=	20
37	-	055	_	067	=	20
38	-	056	_	070	=	20
39	-	057	_	071	=	20
3A	-	058	_	072	=	12
3B	-	059	_	073	=	12
3C	-	060	_	074	=	20
3D	-	061	_	075	=	20
3E	-	062	_	076	=	20
3F	-	063	_	077	=	20
40	-	064	_	100	=	24
41	-	065	_	101	=	24
42	-	066	_	102	=	24
43	-	067	_	103	=	24
44	-	068	_	104	=	24
45	-	069	_	105	=	24
46	-	070	_	106	=	24
47	-	071	_	107	=	24
48	-	072	_	110	=	24
49	-	073	_	111	=	16
4A	-	074	_	112	=	20
4B	-	075	_	113	=	24
4C	-	076	_	114	=	24
4D	-	077	_	115	=	28
4E	-	078	_	116	=	24
4F	-	079	_	117	=	24
50	-	080	_	120	=	24
51	-	081	_	121	=	24
52	-	082	_	122	=	24
53	-	083	_	123	=	24
54	-	084	_	124	=	24
55	-	085	_	125	=	28
56	-	086	_	126	=	24
57	-	087	_	127	=	28
58	-	088	_	130	=	24
59	-	089	_	131	=	24
5A	-	090	_	132	=	20

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
5B	-	091	_	133	=	16
5C	-	092	_	134	=	20
5D	-	093	_	135	=	16
5E	-	094	_	136	=	20
5F	-	095	_	137	=	20
60	-	096	_	140	=	12
61	-	097	_	141	=	20
62	-	098	_	142	=	24
63	-	099	_	143	=	20
64	-	100	_	144	=	24
65	-	101	_	145	=	20
66	-	102	_	146	=	16
67	-	103	_	147	=	20
68	-	104	_	150	=	24
69	-	105	_	151	=	12
6A	-	106	_	152	=	16
6B	-	107	_	153	=	24
6C	-	108	_	154	=	12
6D	-	109	_	155	=	28
6E	-	110	_	156	=	24
6F	-	111	_	157	=	20
70	-	112	_	160	=	24
71	-	113	_	161	=	24
72	-	114	_	162	=	20
73	-	115	_	163	=	20
74	-	116	_	164	=	16
75	-	117	_	165	=	24
76	-	118	_	166	=	24
77	-	119	_	167	=	28
78	-	120	_	170	=	20
79	-	121	_	171	=	24
7A	-	122	_	172	=	20
7B	-	123	_	173	=	16
7C	-	124	_	174	=	12
7D	-	125	_	175	=	16
7E	-	126	_	176	=	20
7F	-	127	_	177	=	00
80	-	*128*	_	*200*	=	*24*
81	-	*129*	_	*201*	=	*24*
82	-	*130*	_	*202*	=	*20*
83	-	*131*	_	*203*	=	*20*
84	-	*132*	_	*204*	=	*20*
85	-	*133*	_	*205*	=	*20*
86	-	*134*	_	*206*	=	*20*
87	-	*135*	_	*207*	=	*20*

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
88	-	*136*	_	*210*	=	*20*
89	-	*137*	_	*211*	=	*20*
8A	-	*138*	_	*212*	=	*20*
8B	-	*139*	_	*213*	=	*12*
8C	-	*140*	_	*214*	=	*12*
8D	-	*141*	_	*215*	=	*12*
8E	-	*142*	_	*216*	=	*24*
8F	-	*143*	_	*217*	=	*24*
90	-	*144*	_	*220*	=	*24*
91	-	*145*	_	*221*	=	*28*
92	-	*146*	_	*222*	=	*28*
93	-	*147*	_	*223*	=	*20*
94	-	*148*	_	*224*	=	*20*
95	-	*149*	_	*225*	=	*20*
96	-	*150*	_	*226*	=	*24*
97	-	*151*	_	*227*	=	*24*
98	-	*152*	_	*230*	=	*24*
99	-	*153*	_	*231*	=	*24*
9A	-	*154*	_	*232*	=	*28*
9B	-	*155*	_	*233*	=	*20*
9C	-	*156*	_	*234*	=	*20*
9D	-	*157*	_	*235*	=	*24*
9E	-	*158*	_	*236*	=	*28*
9F	-	*159*	_	*237*	=	*20*
A0	-	*160*	_	*240*	=	*20*
A1	-	*161*	_	*241*	=	*12*
A2	-	*162*	_	*242*	=	*20*
A3	-	*163*	_	*243*	=	*24*
A4	-	*164*	_	*244*	=	*24*
A5	-	*165*	_	*245*	=	*24*
A6	-	*166*	_	*246*	=	*20*
A7	-	*167*	_	*247*	=	*20*
A8	-	*168*	_	*250*	=	*20*
A9	-	*169*	_	*251*	=	*20*
AA	-	*170*	_	*252*	=	*20*
AB	-	*171*	_	*253*	=	*20*
AC	-	*172*	_	*254*	=	*20*
AD	-	*173*	_	*255*	=	*12*
AE	-	*174*	_	*256*	=	*20*
AF	-	*175*	_	*257*	=	*20*
B0	-	*176*	_	*260*	=	*30*
B1	-	*177*	_	*261*	=	*30*
B2	-	*178*	_	*262*	=	*30*
B3	-	*179*	_	*263*	=	*30*
B4	-	*180*	_	*264*	=	*30*
B5	-	*181*	_	*265*	=	*30*
B6	-	*182*	_	*266*	=	*30*
B7	-	*183*	_	*267*	=	*30*
B8	-	*184*	_	*270*	=	*30*

CHARACTER CODE						SETWIDTH
HEX		DEC		OCT		#/120"
B9	-	*185*	_	*271*	=	*30*
BA	-	*186*	_	*272*	=	*30*
BB	-	*187*	_	*273*	=	*30*
BC	-	*188*	_	*274*	=	*30*
BD	-	*189*	_	*275*	=	*30*
BE	-	*190*	_	*276*	=	*30*
BF	-	*191*	_	*277*	=	*30*
C0	-	*192*	_	*300*	=	*30*
C1	-	*193*	_	*301*	=	*30*
C2	-	*194*	_	*302*	=	*30*
C3	-	*195*	_	*303*	=	*30*
C4	-	*196*	_	*304*	=	*30*
C5	-	*197*	_	*305*	=	*30*
C6	-	*198*	_	*306*	=	*30*
C7	-	*199*	_	*307*	=	*30*
C8	-	*200*	_	*310*	=	*30*
C9	-	*201*	_	*311*	=	*30*
CA	-	*202*	_	*312*	=	*30*
CB	-	*203*	_	*313*	=	*30*
CC	-	*204*	_	*314*	=	*30*
CD	-	*205*	_	*315*	=	*30*
CE	-	*206*	_	*316*	=	*30*
CF	-	*207*	_	*317*	=	*30*
D0	-	*208*	_	*320*	=	*30*
D1	-	*209*	_	*321*	=	*30*
D2	-	*210*	_	*322*	=	*30*
D3	-	*211*	_	*323*	=	*30*
D4	-	*212*	_	*324*	=	*30*
D5	-	*213*	_	*325*	=	*30*
D6	-	*214*	_	*326*	=	*30*
D7	-	*215*	_	*327*	=	*30*
D8	-	*216*	_	*330*	=	*30*
D9	-	*217*	_	*331*	=	*30*
DA	-	*218*	_	*332*	=	*30*
DB	-	*219*	_	*333*	=	*30*
DC	-	*220*	_	*334*	=	*30*
DD	-	*221*	_	*335*	=	*30*
DE	-	*222*	_	*336*	=	*30*
DF	-	*223*	_	*337*	=	*30*
E0	-	*224*	_	*340*	=	*20*
E1	-	*225*	_	*341*	=	*20*
E2	-	*226*	_	*342*	=	*20*
E3	-	*227*	_	*343*	=	*20*
E4	-	*228*	_	*344*	=	*20*
E5	-	*229*	_	*345*	=	*20*

CHARACTER CODE				SETWIDTH
HEX	DEC	OCT		#/120"
E6	*230*	*346*	=	*20*
E7	*231*	*347*	=	*20*
E8	*232*	*350*	=	*20*
E9	*233*	*351*	=	*20*
EA	*234*	*352*	=	*20*
EB	*235*	*353*	=	*20*
EC	*236*	*354*	=	*20*
ED	*237*	*355*	=	*20*
EE	*238*	*356*	=	*20*
EF	*239*	*357*	=	*20*
F0	*240*	*360*	=	*30*
F1	*241*	*361*	=	*30*
F2	*242*	*362*	=	*30*
F3	*243*	*363*	=	*30*
F4	*244*	*364*	=	*30*
F5	*245*	*365*	=	*30*
F6	*246*	*366*	=	*30*
F7	*247*	*367*	=	*30*
F8	*248*	*370*	=	*30*
F9	*249*	*371*	=	*30*
FA	*250*	*372*	=	*30*
FB	*251*	*373*	=	*30*
FC	*252*	*374*	=	*30*
FD	*253*	*375*	=	*30*
FE	*254*	*376*	=	*30*
FF	*255*	*377*	=	*20*

ISO 380 EPSON sub/superscript (#/360)
sub/superscript Compressed (#(360*2))

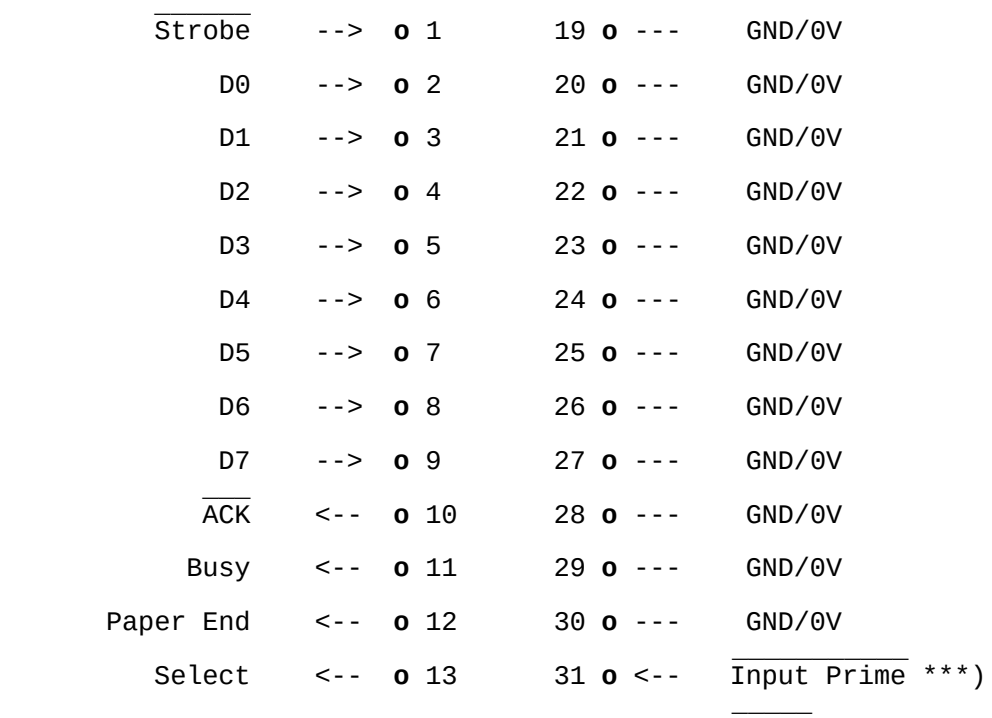
Position		1	2	3	4	6	7	8	9	10	11	12	13	14	15
Dec. Code		35	36	38	64	91	92	93	94	95	96	123	124	125	126
Hexadec.	ESC! n														
AMERICAN	00	20	20	24	24	16	20	16	20	20	12	16	12	16	20
FRENCH	01	20	20	24	20	16	20	20	20	20	12	20	24	20	20
GERMAN	02	20	20	24	20	24	24	28	20	20	12	20	20	24	24
BRITISH	03	20	20	24	24	16	20	16	20	20	12	16	12	16	20
DANISH I	04	20	20	24	24	28	24	24	20	20	12	28	20	20	20
SWEDISH I	05	20	20	24	24	24	24	24	28	20	20	20	20	20	24
ITALIAN	06	20	20	24	24	16	20	20	20	20	24	20	20	20	12
SPANISH I	07	28	20	24	24	12	24	20	20	20	12	20	24	16	20
JAPANESE	08	20	20	24	24	16	24	16	20	20	12	16	12	16	20
NORWEGIAN	09	20	20	24	24	28	24	24	28	20	20	28	20	20	24
DANISH II	0A	20	20	24	24	28	24	24	28	20	20	28	20	20	24
SPANISH II	0B	20	20	24	20	12	24	20	20	20	12	12	24	20	24
LATIN AMERIC	0C	20	20	24	20	12	24	20	20	20	24	12	24	20	24
FRENCH CAN	0D	24	20	20	20	20	20	20	12	12	20	20	24	20	24
DUTCH	0F	20	20	24	24	16	28	16	20	20	12	16	24	16	20
SWEDISH II	10	20	20	24	24	24	24	24	28	20	20	20	20	20	24
SWEDISH III	11	20	20	24	24	24	24	24	28	20	20	20	20	20	24
SWEDISH IV	12	20	20	24	24	24	24	24	20	20	20	20	20	20	24
TURKISH	13	20	20	24	24	12	20	24	24	20	20	16	24	28	24
SWISS I	14	20	20	24	20	20	20	20	20	20	12	20	20	24	20
SWISS II	15	20	20	24	20	20	20	20	20	20	12	20	20	24	20

Value of can also be between 30 - 39 hex equal to 00 - 09 hex!

```
****************************************
*                                      *
*  Parallel Centronics IF  Seite: 33   *
*                                      *
****************************************
*                                      *
*  RS 232C Interface       Seite: 34-36*
* (incl. Kabelvorschlag)               *
****************************************
```

Centronics-Parallel Interface

36-poliges Interface


Strobe --> o 1 19 o --- GND/0V
D0 --> o 2 20 o --- GND/0V
D1 --> o 3 21 o --- GND/0V
D2 --> o 4 22 o --- GND/0V
D3 --> o 5 23 o --- GND/0V
D4 --> o 6 24 o --- GND/0V
D5 --> o 7 25 o --- GND/0V
D6 --> o 8 26 o --- GND/0V
D7 --> o 9 27 o --- GND/0V
ACK <-- o 10 28 o --- GND/0V
Busy <-- o 11 29 o --- GND/0V
Paper End <-- o 12 30 o --- GND/0V
Select <-- o 13 31 o <-- Input Prime ***)
Auto Feed *) --> o 14 32 o --> Fault
o o
Sign.GND/0V --- o 16 o
Shield Ground --- o 17 o
+5V **) <-- o 18 36 o

```
---  o  ---   no direction
<--  o  -->   from Printer
-->  o  <--   to Printer
```

Menu Setting for Centronics Parallel Interface

			(Factory setting)
*)	Pin 14 Auto Feed		
	Menu item:	Auto Feed XT	Invalid
**)	Pin 18 +5V		
	Menu item:	Pin 18 Output (+5V)	5 V
***)	Pin 31 Input Prime		
	Menu item:	I-Prime Signal	Valid

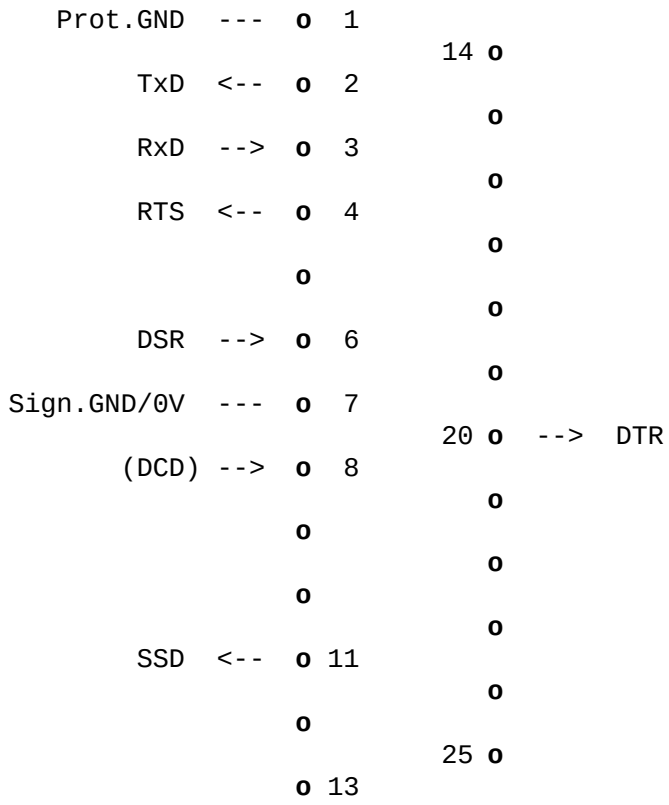
RS-232C Serial Interface Board

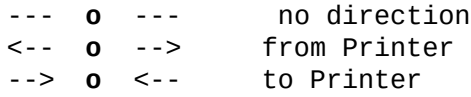
Menü - Factory Setting

Parity	ODD, EVEN, **NONE**
Data Bit Length 7 or 8	7, **8**
Protocol	**Ready/Busy**, XON/XOFF
Diagnostic Test	**NO**, YES
Busy Line	**SSD**-, SSD+, DTR, RTS
Baud Rate	300 bps, 600 bps, 1200 bps, 2400 bps, 4800 bps, 9600 bps, **9600 bps**, 19600 bps
DSR Signal	**Valid**, Invalid
DTR Signal	Ready, -**ON Power up** -ON Select
Busy Time	**200 Milliseconds** 1 Second

RS-232C Serial Interface Board

25-poliges Interface



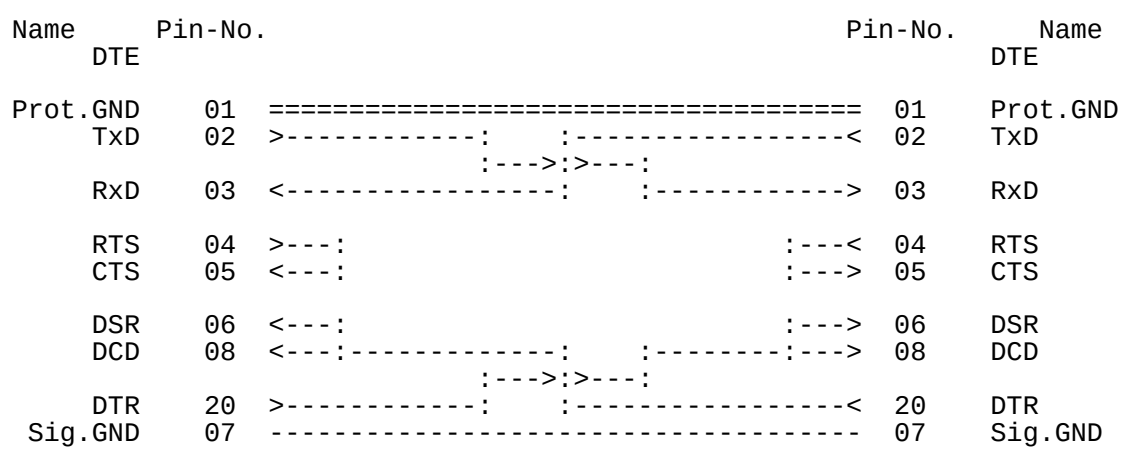


Testplug RS232C

TxD	2	-->	3	RxD
RTS	4	-->	5	CTS
(DCD)	8	<--	11	SSD
DTR	20	-->	6	DSR

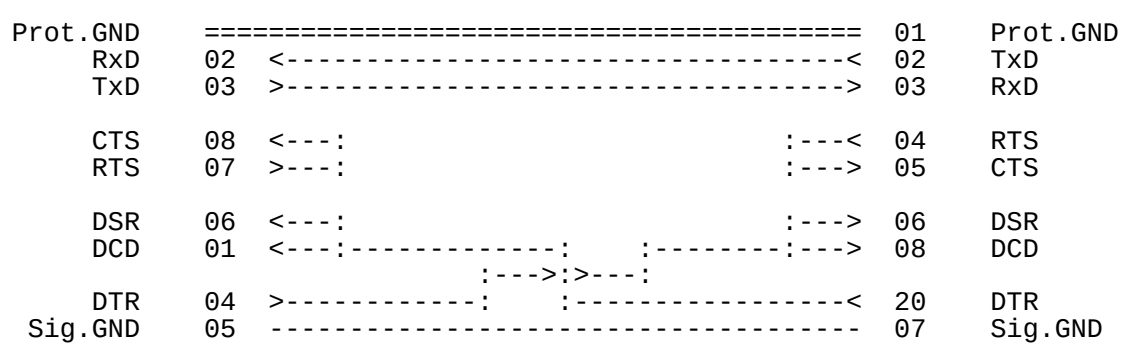
IBM Personal Computer XT **OKI -RS 232C**

25 pins SUB-D 25 pins SUB-D
(female) connector male connector



IBM Personal Computer AT **OKI -RS 232C**

09 pins SUB-D 25 pins SUB-D
(female) connector male connector



Menü-Setting RS 232 Interface

1.) Diagnostic Test = No
2.) Data Set Ready (DTR) = Invalid
3.) if Ready/Busy protokoll then 'Busy Line' = DTR